

COLOR PRINTER CALIBRATION

Abstract of the Disclosure

The present invention addresses the quantification of a
5 printed tone scale for each individual color in a printing system, developing a
linear tone scale derived in an independent color space and referenced from the
shade of the unprinted substrate. The present invention determines the
threshold for excessive ink coverage of a printing system on a specified
substrate. This determination is based on a subjective evaluation of acceptable
10 thresholds for bleed, cockle, show through, and image density. The method
works in conjunction with a predefined test pattern printed on the specified
substrate at fixed printing parameters, such as speed, dryer temperature, and
web tension. This invention also includes an ability to limit the ink of each
independent color in the system as a fraction of the total upper ink limit.
15 Furthermore, this invention allows calibration of the tone scale of each color in
the system using the color of the paper as a reference point. In addition, this
invention facilitates the generation of separate sets of tone scale
transformations for both graphics and text for each color in the system.